

**Before the  
Federal Communications Commission  
Washington, DC 20554**

In the Matter of	)	
	)	
Modernizing the E-Rate	)	WC Docket No. 13-184
Program for Schools and Libraries	)	

**REPLY COMMENTS OF  
THE INTERNATIONAL ASSOCIATION FOR K-12 ONLINE LEARNING (iNACOL)  
IN RESPONSE TO THE  
NOTICE OF PROPOSED RULEMAKING**

The International Association for K-12 Online Learning ("iNACOL") respectfully submits its reply to initial comments in response to the Federal Communications Commission's Notice of Proposed Rulemaking seeking to review and modernize the E-Rate program. iNACOL once again would like to applaud the Commission for undertaking this much-needed review and update of the E-Rate program, and appreciates the opportunity to continue the important ongoing discussion about E-Rate before the Commission.

The unprecedented response during the initial comment period from such a wide range of stakeholders underscores the importance of the Commission's work to modernize the E-Rate program. The new educational opportunities presented by online and blended learning models cannot be overstated, and the Commission should seize

this opportunity to transform E-Rate to ensure our schools have the requisite high-speed broadband for the implementation of digital learning.

I. **About iNACOL**

The mission of the International Association for K-12 Online Learning (iNACOL) is to ensure all students have access to a world-class education and quality blended and online learning opportunities that prepare them for a lifetime of success. iNACOL is a non-profit organization focused on research; developing policy for student-centered education to ensure equity and access; developing quality standards for emerging learning models using online, blended, and competency-based education; and supporting the ongoing professional development of classroom, school, district and state leaders for new learning models.

iNACOL has 4,400 members worldwide who teach, administer, support, or advocate for K-12 online and blended learning. iNACOL members include students, parents, educators, researchers, companies, nonprofit organizations and other interested individuals.

iNACOL offers the following reply comments to assist the Commission in its efforts to craft an E-Rate program that will better serve the needs of schools, libraries, and their students today.

II. **Introduction and Background**

iNACOL joins in the call for several key reforms that have found strength amongst a wide range of commenters:

**1) E-Rate must be updated to meet modern levels of demand, which far exceed the current level of available funding support 2:1.** As schools transform learning environments, using technology to drive student-centered learning and the amount of rich online content available for personalizing instruction increases, including adaptive content and assessments, recommendation engines, rich media, video and simulations, the bandwidth demands increase with them. Students and educators need an updated E-Rate program that can not only keep up with the broadband, wireless, and mobile technologies that drive instruction today, but a program that is future-proof and capable of keeping pace with technology five to ten years down the road.

**2) The E-Rate program should be modernized to permit a more flexible prioritization of services.** As the technology supporting student learning has evolved, the dual stage prioritization of E-rate services has not only become obsolete, but has also limited schools' ability to receive vital support for internal and wireless networks. The Commission should eliminate the priority system and focus on creating a simplified eligible services list focused on broadband-related services to better facilitate schools' and libraries' ability to address their specific digital learning needs with their E-Rate funds.

**3) The E-Rate application process should be streamlined.** The FCC should explore ways to reduce the complexity of the current E-Rate application system. Currently, many schools and libraries spend valuable resources on specialized E-Rate consultants or coordinators to guide them through the application process. Elimination of excess bureaucracy and cost in the application process along with a transition to

simplified online applications can greatly assist schools and libraries in their application process.

**4) E-Rate should maximize cost-effectiveness within the program by supporting consortia and pool participation, and other cost-saving measures.** By encouraging schools to participate in bulk purchasing by consortia of schools, districts, or states, the Commission can both improve the cost-effectiveness of E-Rate funds and increase productivity with applications. In response to a survey of iNACOL members, some schools and districts have reported that while their connectivity needs could be served more cost-effectively by certain infrastructure-related projects and services, they are forced to choose less optimal services in order to receive E-Rate support. The Commission should endeavor to ensure that E-Rate does not incentivize cost-inefficiency due to onerous restrictions or inflexibility.

**5) E-Rate should support learning outside the classroom.** One of the most prominent advantages of online and blended learning models is that they afford students greater flexibility in time and place of learning. However, anytime anywhere learning depends on connectivity both in *and* out of the classroom. By relaxing restrictions that prohibit schools from making their E-rate-funded connections available to students outside classroom hours or campus boundaries, the Commission can ensure that the learning process is able to continue beyond the walls and bell schedule of a classroom.

III. **Increasing the Amount of E-Rate Funds Available for High-Speed Internet Connections to Support 21<sup>st</sup> Century Teaching and Learning**

Technology has been at the heart of transforming the modern educational model. Educators are using digital tools and blended learning strategies to personalize learning, thereby ensuring that the right resources reach the right students at the right time<sup>1</sup> and enabling a fundamental shift towards a goal of college and career readiness.<sup>2</sup> Seventy percent of school districts already offer some form of blended or online learning,<sup>3</sup> and experts estimate that computer-based courses will rise from ten percent of all courses in 2014 to about fifty percent by 2019.<sup>4</sup>

While the ConnectED target of 100 mbps per 1,000 users for schools, increasing to 1 gbps per 1,000 users by 2020, drew widespread support from a wide cross-section of commenters,<sup>5</sup> schools still fall far short of these benchmarks. Only twenty-three percent of our nation's schools have the high-speed bandwidth necessary to support

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<sup>1</sup> Education and Libraries Networks Coalition Comments at 11-12.

<sup>2</sup> SETDA Comments at 6-7.

<sup>3</sup> Babson Survey Research Group and College Board. "10th Annual Survey of Online Learning." *The Sloan Consortium*, 2012. [sloanconsortium.org/publications/survey/pdf/K-12\\_Online\\_Learning.pdf](http://sloanconsortium.org/publications/survey/pdf/K-12_Online_Learning.pdf)

<sup>4</sup> Horn, Michael B. and Clayton Christensen. "How Do We Transform Our Schools?" *EducationNext*, Vol. 8, No. 3, Summer 2008. <http://educationnext.org/how-do-we-transform-our-schools/>

<sup>5</sup> SETDA Recommendation at 2. See *also* South Carolina K-12 School Technology Initiative Comments at 5; Partnership for 21<sup>st</sup> Century Skills Comments at 2; GE Foundation Comments at 3; Communications Workers of America Comments at 4-5.

high-quality digital content and online assessment, and less than ten percent have broadband that will be sufficient for projected demands in 2017.<sup>6</sup>

It is crucial that schools be adequately equipped to support the growing and transformative use of digital and online content, and the role of the E-Rate program in achieving this cannot be understated. It is often cost prohibitive for schools to obtain adequate broadband connectivity. When surveyed, eighty-five percent of iNACOL members reported that cost, both of Internet connections and of wireless infrastructure, was the most significant barrier to providing high-quality digital learning.

While some commenters<sup>7</sup> have called for the Commission to work within the current allocated E-Rate budget, it is clear that a more robust E-Rate program is needed to keep pace with the demands of new learning environments, rich digital content, and online assessments. iNACOL agrees that great strides can, and should, be made in improving the cost-effectiveness of current E-Rate funding. We believe that many of the reforms we suggested in our comments and support these reply comments, along with the gradual phase out of legacy services,<sup>8</sup> can help free up substantial amounts of E-Rate funding by curbing waste, fraud, and abuse. However, even with such savings, E-Rate will still require additional funding. Demand for E-Rate funds have

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<sup>6</sup> Coulter, James G. Testimony before the Senate Committee on Commerce, Science and Transportation, Hearing on “E-Rate 2.0: Connecting Every Child to the Transformative Power of Technology,” July 17, 2013.  
[http://www.commerce.senate.gov/public/?a=Files.Serve&File\\_id=45344d1a-c57f-4869-ae66-f40d62afe8d6](http://www.commerce.senate.gov/public/?a=Files.Serve&File_id=45344d1a-c57f-4869-ae66-f40d62afe8d6)

<sup>7</sup> See American Cable Association Comments at 9; A

<sup>8</sup> See AT&T Comments, Attachment 1, for a list of telephony and TDM based services appropriate for gradual retirement.

far outstripped the program's current limits; for FY2013, the \$4.99B was requested in support was more than double the \$2.38B limit for the program. Reaching the ConnectED goals will not only require increased funding to meet today's bandwidth demands, but also the increased demands of tomorrow's high-quality blended and online learning models and assessments. EducationSuperHighway estimates that in 2017 the aggregate bandwidth required by K-12 networks will have increased tenfold from 5.5 terabits to 55 terabits.<sup>9</sup> Even assuming a 67 percent *decrease* in bandwidth costs, fully funding K-12 aggregate bandwidth demands in 2017 would require five times the current total E-Rate budget.

We again urge the Commission to fully equip the E-Rate program to meet the needs driven by highly personalized blended and online learning environments and assessments by increasing the funding limit to a level commensurate with demand. If E-Rate continues to be unable to meet all schools' requests, students will remain disconnected from crucial modern digital content and tools due to outdated connections.

#### **IV. A More Flexible E-Rate Program Adaptable to the Needs of Fluid Emerging 21<sup>st</sup> Century Learning Environments**

iNACOL believes that students and educators are best served by a flexible E-Rate program that can adapt to the progress of technology and also recognizes that individual schools, school districts, and libraries are best equipped to determine the right solutions to their own evolving connectivity needs. Therefore we echo the call for the

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<sup>9</sup> Data presented by Evan Marwell, CEO and Co-Founder of EducationSuperHighway, at an online presentation hosted by iNACOL on August 6th, 2013. A recording of the presentation can be found online at: <http://www.youtube.com/watch?v=t5GkNTDEOFA&feature=youtu.be>

Commission to create a simplified eligible services list focused on broadband-related services that can provide educators with much-needed flexibility in applying for E-Rate funds for services they need most.<sup>10</sup>

iNACOL members report the need for greater support for e-learning infrastructure—including external content providers, learning management systems, network maintenance, and security services—in addition to greater connection support. Over eighty-seven percent report relying on external content providers and learning management systems to support student learning. Another eighty percent also report relying on network maintenance and security services to maintain their connections for student usage. As crucial components in online and blended learning models, the Commission should give serious consideration to allowing schools and libraries to use part of their E-Rate funds for such services.

It is important that the Commission not only increases support for digital learning, but also modernizes the program in a manner that curbs waste and rewards good stewardship. Therefore, iNACOL supports the call to eliminate the dual priority system.<sup>11</sup> Because Priority 2 funding is not guaranteed in the current system, applicants are perversely incentivized to request Priority 1 services in order to maximize guaranteed funding, even when they would be more efficiently served by a Priority 2 request.<sup>12</sup> A

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<sup>10</sup> See Iowa Department of Education Comments at 5-6; Funds for Learning Comments at 5-6; Comcast Comments at 15; City of Boston Comments at 5-6; Alabama State Department of Education Comments at 10; State of Arkansas Comments at 11-12; California Department of Education at 7.

<sup>11</sup> See, e.g., New York City Department of Education Comments at 4; Weslaco Independent School District Comments at 10.

<sup>12</sup> Weslaco Independent School District Comments at 10.



single list of eligible services not only effectively removes the incentive to game the priority system, but will also reduce the complexity of the application process by consolidating applications into one stage.

Eliminating the Priority 1 and Priority 2 distinction is especially crucial to ensure that internal infrastructure is appropriately prioritized going forward. In addition to insufficient high-bandwidth broadband connections, the LEAD Commission reports that over eighty-three percent of K-12 schools have outdated wireless networks and internal network infrastructure.<sup>13</sup> The lack of sufficient wireless connectivity greatly limits the connectivity available to individual classrooms regardless of the quality of a school's reported bandwidth capabilities. However, because support for internal networks is currently considered a Priority 2 service, wireless connectivity usually goes unfunded for schools due to the high level of demand for Priority 1 services. In the event that the Commission decides not to revise the dual priority system, it should consider alternate options through which internal network support can be funded on parity with basic connections.

iNACOL also urges the Commission to re-examine the discount matrix system. While schools serving our most disadvantaged students need and deserve access to resources necessary to make blended and online learning available to their students, the current E-Rate system allows applicants with the highest discount rates to request a disproportionately high amount of funding. One notable example reported by Funds for Learning is the case of the New York City Board of Education ("NYBOE"). Funds for

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<sup>13</sup> The LEAD Commission. *"Paving a Path Forward for Digital Learning in the United States,"* June 2013. <http://www.leadcommission.org/sites/default/files/LEAD%20Commission%20Blueprint.pdf>

Learning reports that the average funding request per student for telecommunications and Internet connectivity is approximately \$57 (rising to \$129 in remote rural areas); however the NYBOE request per student was \$281 per student – nearly five times the national average and over four times the average for schools located in large cities.<sup>14</sup> In many previous years, E-Rate has expended all available funding on at the 90 and 80 percent discount bracket before schools at the 70 and 60 discount brackets receive any support. The Commission should prioritize redesign of the E-Rate system such that all applicants receive an equitable share.

To further this goal, iNACOL again encourages the Commission to explore administering E-Rate funds on a budget-based system. Distribution of funds through a budget can help ensure that all applicants receive an appropriate level of support while also encouraging applicants to make efficient use of the limited funds they are allotted. Additionally, such a system would grant applicants the flexibility to pursue chosen priorities, regardless of the Commission's final decision as to whether to alter the dual priority system. Finally, the stability of a budget would assist in simplifying schools' and libraries' budgetary decisions by allowing them to know ahead of time an approximate level of support they should receive.

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<sup>14</sup> Funds for Learning. "E-Rate 2.0 Proposal." July 17, 2013.

## V. **A Streamlined and Online E-Rate Application Process**

The Commission outlined the improvement of E-Rate administration as one of its three goals in the Notice of Proposed Rule Making.<sup>15</sup> Numerous comments filed highlighted the need for such reform, citing issues such as delays and denials of funding<sup>16</sup> resulting from the complexity of the application process. The Government Accountability Office reported that a significant percentage of E-Rate participants found the filing process difficult.<sup>17</sup> Indeed, many schools and libraries find the E-Rate application process so daunting that they are compelled to spend valuable resources on specialized E-Rate consultants to guide them through the application process.

iNACOL is supportive of proposals from commenters such as SECA,<sup>18</sup> the Vermont Agency of Education,<sup>19</sup> and the National Education Association<sup>20</sup> to move the E-Rate application process online. In addition to centralizing the application process, an online portal would allow schools to track their request status and determine the cause of funding delays.

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<sup>15</sup> *E-Rate NPRM*, ¶ 11.

<sup>16</sup> Cox Communications Comments at 11; California Department of Education Comments at 4

<sup>17</sup> Government Accountability Office, Long-Term Strategic Vision Would Help Ensure Targeting of E-rate Funds to Highest-Priority Uses 29-43 (March 2009).

<sup>18</sup> SECA, SECA's Recommendations for E-Rate Reform 2.0 at 17-19 (June 2013).

<sup>19</sup> Vermont Agency of Education Comments at 4.

<sup>20</sup> National Education Association Comments at 9.

VI. **An E-Rate Program Encouraging and Supportive of Cost-Effective Solutions**

One of the most prominent barriers learning environments face in employing online and blended learning models is the cost of connectivity. Even with E-Rate support, many schools lack options for getting the connections they need at acceptable prices. In response to a survey, many INACOL members report that they face exorbitantly high rates due to a lack of competition in their region.

Consortia of schools, districts, or states are generally able to attain more competitive rates by utilizing greater leverage. The Iowa Department of Education noted that participation in state and a regional consortia application resulted in lower costs for the districts and schools as well as improved network reliability and functionality.<sup>21</sup> However the current E-Rate structure often discourages consortia applications with disparately burdensome review processes.<sup>22</sup> Moreover, participation in a consortium often further complicates an already complex and lengthy E-Rate application process by subjecting the entire consortium to funding delays due to errors with one member's application.<sup>23</sup>

This has prompted a wide range of commenters, from state and local education departments to non-profits and industry stakeholders, to call for consortium-focused

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<sup>21</sup> Iowa Department of Education Comments at 11-12

<sup>22</sup> American Library Association Comments at 23-24 (noting that one consortium disbanded in the face of an overly "onerous" and "time-consuming" review process).

<sup>23</sup> State of Arkansas Comments at 20; Funds for Learning Comments at 48-49 (noting, for instance, that a problem with one consortium member can tie up the review of an entire application).

reform.<sup>24</sup> iNACOL supports calls for the Commission to prioritize consortium applications in the review process.<sup>25</sup> The review process should also strive to ensure that consortium applications are reviewed within the same amount of time as individual applications. This can be accomplished by allocating special consortium reviewers.<sup>26</sup>

iNACOL urges the Commission to review and modernize the rules governing the use of E-Rate funds for infrastructure projects, such as internal infrastructure, wide area networks and fiber networks.

The Commission should similarly seek to make support for related network equipment and infrastructure available within E-Rate. One iNACOL member reported having a cost-efficient school-owned dark fiber network that required new server equipment. However, because the school could not receive E-Rate support for new network equipment, the school was forced to transition to an industry provided connection service. Despite the downgrade in service, the member reported that this was the only option because the school could not afford to replace its network equipment and subscription-based Internet service was eligible for an E-Rate subsidy.

The Commission may also wish to consider methods to create a more robust and transparent bidding process, both inside and outside of consortia purchases, to ensure reasonable pricing. iNACOL echoes the suggestions of other commenters from a broad

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<sup>24</sup> Alabama State Department of Education Comments at 14-15; AT&T Comments at 10; EducationSuperHighway Comments at 30; San Diego County Office of Education Comments at 5.

<sup>25</sup> Sunesys Comments at 8.

<sup>26</sup> Internet2 Comments at 19-20.

cross-section of stakeholders<sup>27</sup> that a more transparent and open process can help curb costs by increasing competitiveness and improving the leverage of schools and libraries when negotiating contracts.

## VII. **Increasing Support for Anytime, Anywhere Learning**

One of the advantages of blended and online learning models is that they can afford students greater flexibility in schedule, allowing the learning process to continue beyond the time provided in the classroom and outside the school.

However, this flexibility depends on connectivity both in and out of the classroom, something that campus networks often cannot provide when schools and libraries close for the evening. Earlier this year, the Wall Street Journal reported an alarming trend of students without home Internet access forced to study at fast food restaurants so they could access a free wireless network.<sup>28</sup> Schools implementing blended learning models have found that the lack of home Internet access has hampered student learning.<sup>29</sup> This connectivity gap has forced many educators away from integrating online and blended learning into learning environments, knowing that many of their students lack the

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<sup>27</sup> See the American Library Association Comments at 5, 25; Alliance for Excellent Education Comments at 10; Benton Foundation Comments at 12; Connected Nation Comments at 19-21; Edline Comments at 4-8, HP Comments at 16; City of Philadelphia Comments at 5; SETDA comments at 20; NASUCA Comments at 11

<sup>28</sup> Trioanovski, Anton. "The Web-Deprived Study at McDonald's." *The Wall Street Journal*, January 28, 2013. <http://online.wsj.com/article/SB10001424127887324731304578189794161056954.html>

<sup>29</sup> Bernatek, Brad; Cohen, Jeffrey; Hanlon, John; and Mathhew Wilka. "Blended Learning in Practice: Case Studies from Leading Schools." *The Michael and Susan Dell Foundation*, September 2012. [http://5a03f68e230384a218e0-938ec019df699e606c950a5614b999bd.r33.cf2.rackcdn.com/msdf\\_firstline\\_06.pdf](http://5a03f68e230384a218e0-938ec019df699e606c950a5614b999bd.r33.cf2.rackcdn.com/msdf_firstline_06.pdf)

requisite Internet access at home. In a survey conducted amongst iNACOL members, 29 percent of responders reported the lack of home Internet access was one of their top three connectivity barriers. The widening digital divide threatens to cut off our nation's most disadvantaged students who stand to benefit the most from blended and online learning.

iNACOL believes that E-Rate can play a part in solving this pressing issue by increasing support for mobile connectivity in support of anytime, anywhere student learning. Other commenters, such as the Los Angeles Unified School District and the Houston Independent School District have also urged the Commission to support wireless broadband access on and off campus.<sup>30</sup> The Commission should give careful consideration to proposals that would allow schools and libraries to allow students to connect to existing networks through mobile and wireless hotspots.<sup>31</sup> Additionally, the Commission could provide a vehicle for mobile connectivity within E-Rate by relaxing current restrictions that prohibit schools from making their E-Rate funded mobile connections available to students outside classroom hours or campus boundaries.

Extending allowable uses of mobile access can also augment E-Rate support for online schools that do not have physical classrooms and have largely been excluded from the current E-Rate program as a result. In response to a survey of iNACOL

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<sup>30</sup> Los Angeles Unified School District Comments at 9; Houston Independent School District Comments at 3.

<sup>31</sup> See Alliance for Excellent Education Comments at 9; American Library Association Comments at 31; City of Boston Comments at 7-8; E-Rate Central Comments at 4, 14; Leadership Conference on Civil and Human Rights Comments at 2; McGraw-Hill Comments at 12-13; National Hispanic Media Coalition Comments at 3, City of Philadelphia Comments at 11-12; SETDA Comments at 19; The Quilt Comments at 13.

members, one online school in Georgia reported that its biggest barrier to getting adequate high-speed Internet connectivity to support student learning was the lack of home Internet connectivity and devices for low income students. However, due to being an online school, the school does not believe itself eligible to participate in E-Rate. Allowing such schools to provide E-Rate funded mobile connections would greatly expand the range of students they could serve.

iNACOL applauds the Commission for its other efforts to bring connectivity to students and their communities through its at-home broadband projects, such as the Lifeline Broadband Pilot, Learning on the Go Pilot ("LOGO"), and Connect2Compete.<sup>32</sup> With the success of online and flipped learning dependent upon students having access to critical online and digital learning tools at home, these programs serve an essential role in closing the digital divide by ensuring that all students have access to the highest quality of education.

## VIII. **Conclusion**

Blended and online learning models are leveling the playing field to ensure that every student has access to a high-quality, personalized, world-class education that prepares him or her for a lifetime of success, regardless of his or her zip code or socio-economic background. Students' access to these educational opportunities depends on adequate broadband connectivity in schools, homes and communities. A successful E-

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<sup>32</sup> The Wireline Competition Bureau. "In the Matter of Lifeline and Link Up Reform and Modernization." December 19, 2012. [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/DA-12-2045A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-12-2045A1.pdf)



Rate program is crucial to attaining the school and library connectivity necessary for students to reap the benefits of blended and online learning environments.

We applaud the Commission for considering crucial updates to the E-rate program and encourage it to give serious consideration to adopting the recommendations contained in iNACOL's comments and reply comments. Doing so will ensure that our students have access to the tools they need to succeed in college, career, and the 21<sup>st</sup> Century economy.

Respectfully submitted,



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